

# United States Patent Office.

GEORGE LOMAS LOVERSIDGE, OF BURY BANK COTTAGES, ENGLAND.

*Letters Patent No. 68,631, dated September 10, 1867.*

## IMPROVEMENT IN TANNING.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE LOMAS LOVERSIDGE, of Greenfield, York county, England, have invented an Improvement in Tanning; and I do hereby declare the following to be a full, clear, and exact description of the same.

My said invention relates to an improved method of tanning, by the employment, in the peculiar manner fully described hereafter, of alkalies in conjunction with usual tanning materials, such as valonia, or of valonia and oak bark or gambier. The alkalies referred to are caustic potash and carbonate of potash or American pearlshashes, caustic soda and carbonate of soda, ammonia and carbonate of ammonia, whereby a considerable diminution of the time required for the process of tanning is effected, and a leather or tanned hide or skin of superior quality is obtained.

In carrying out my invention, I prefer that the hides or skins should have undergone the ordinary preliminary treatment of liming, fleshing, and unhairing, and when sufficiently well prepared, I submit them, firstly, to the action of a bath composed of a solution or extract of valonia, or of catechu, or other equivalent tanning material, marking about one degree on Twaddell's hydrometer, and of American pearl-ashes or carbonate of potash, which are to be dissolved in warm water and then added to the bath, so as to raise the same one degree on the hydrometer, the bath now marking two degrees on Twaddell's hydrometer. The hides or skins are handled about three times a day for about three days, when they are removed to a second bath, which is composed of a solution or extract of valonia or other equivalent tanning materials marking about three degrees on the hydrometer, and of American pearl-ashes or carbonate of potash, so as to make the bath one degree higher on the hydrometer, the bath now marking four degrees. The hides or skins are allowed to remain in this bath for about four days, they being handled about twice per diem. After the expiration of the fourth day the hides or skins are placed in a bath consisting of a solution or extract of valonia or other equivalent tanning materials marking seven degrees on the hydrometer, and of American pearl-ashes or carbonate of potash, so as to raise the bath from one to one and one-half degree on the hydrometer, the bath now marking from eight to eight and one-half degrees. In this bath the hides or skins are allowed to remain for about seven days, during which time they should be handled about four times.

In some cases, where very thick hides are operated upon, they may, at this stage of the process, be with advantage transferred to another bath, consisting of a solution or extract of valonia or other equivalent tanning material, marking nine degrees on the hydrometer, and of American pearl-ashes or carbonate of potash, so as to raise the bath one degree on the hydrometer, the bath now marking ten degrees. In this bath the thick hides may be allowed to remain for about nine days, during which time they should be handled three times, more or less time being required according to the nature and thickness of the hides operated upon, as may be ascertained by cutting and examining the hides, as is well known by persons familiar with the tanning process.

In the case of hides of ordinary thickness, they will not need to be subjected to the action of the bath, where, as I have stated, thick hides may be treated, and allowed to remain nine days, more or less, but they should be transferred from the bath, where, as I have above stated, they should be treated and allowed to remain seven days, to the bath which I may term the final bath, which is composed of a solution or extract of valonia or other equivalent tanning materials, marking nine degrees on the hydrometer, and to which are added pearl-ashes or carbonate of potash, so as to raise the bath one-half degree on the hydrometer, the bath now marking nine and one-half degrees. Between each hide or skin, as they are placed in the bath, about six pounds of oak bark or valonia are scattered or strewn, and they are allowed to remain therein for about fourteen days, when they are removed and finished in the ordinary manner. The very thick hides should also be treated in the bath I term the final bath for a period of fourteen days, more or less.

The alkalies referred to are caustic potash and carbonate of potash, caustic soda and carbonate of soda, ammonia, and carbonate of ammonia.

It should always be borne in mind that the baths employed respectively should be maintained at about the strength I have indicated, and as the materials of which they are composed are taken up or removed during the process of treating in them the hides or skins as I have described, fresh materials should be added, from time to time, to replace those that may have been removed.

I do not claim broadly the employment of alkalies in connection with the usual tanning material, but I claim as my invention, and desire to secure by Letters Patent—

Subjecting hides to the action of the within-described ingredients in the manner set forth.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE LOMAS LOVERSIDGE.

Witnesses:

S. STRINGER, Attorney, 1 Saint Ann Street, Manchester, a Commissioner in Chancery in England.  
JOHN DALEY, Manchester.